

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/001397

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ F04B39/04, 39/00, 39/14, F16B4/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ F04B39/00-39/16, F16B4/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Jitsuyo Shinan Toroku Koho	1996-2005
Kokai Jitsuyo Shinan Koho	1971-2005	Toroku Jitsuyo Shinan Koho	1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 60-90995 A (Toshiba Corp.), 22 May, 1985 (22.05.85), Full text (Family: none)	1-5
Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 43012/1986 (Laid-open No. 156170/1987) (Toshiba Corp.), 03 October, 1987 (03.10.87), Full text (Family: none)	1-5

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search
26 April, 2005 (26.04.05)

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Name and mailing address of the ISA/
Japanese Patent Office

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 158397/1981 (Laid-open No. 63407/1983) (Tokyo Buhin Kogyo Co., Ltd.), 28 April, 1983 (28.04.83), Full text; Figs. 6, 7 (Family: none)	1-5
Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 130180/1974 (Laid-open No. 70091/1976) (Koito Manufacturing Co., Ltd.), 02 June, 1976 (02.06.76), Full text; Figs. 4, 5 (Family: none)	1-5
A	JP 45-26515 Y1 (Tokyo Shibaura Electric Co., Ltd.), 15 October, 1970 (15.10.70), Full text (Family: none)	1-5